Milestone 5: Unit Testing
Team: Cache Me if You Can
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Vision: To create a social geocaching application which inspires collaboration among CU students.

Automated Testing:
The user acceptance testing below will be automated using selenium. The workflow will be such that any pull requests made should not create regressions. The code for the selenium is in the devtest branch of the repository.

User Acceptance Testing:

1. **Scope**
   We define the scope of our user acceptance tests as follows
   a. In Scope
      i. New user sign up(two users)
      ii. User sign in(two users)
      iii. Riddle Creation (first user)
      iv. Riddle Solving (second user)
      v. User sign out (both users)
   b. Out of Scope
      i. Prize acceptance
      ii. Email notification for riddle solved
      iii. Tips to create riddles for users
2. **Assumptions**
   Prior to starting our UAT we assume the following about our application
   a. The website is properly served, and is accessible to users with an internet connection
   b. The bootstrap framework is properly implemented, so the website is easily navigable by a user with a smartphone
   c. The html is properly coded such that page navigation functions correctly
3. **Risks**
   Some of the risks which would limit the effectiveness of our UAT include
   a. Limited test environment: This application is meant to function throughout the entirety of campus and the surrounding Boulder area; unfortunately, given the limited time we have users will likely only visit one or two test locations. Accordingly, these tests may not provide comprehensive insight into how Cache Me if You Can will function when users explore new places.
   b. Limited user group: In terms of log in and new user creation, there are only so many students/ scenarios we can test. Accordingly, it is possible that we do not

catch a certain test case (ie creating an account with an improper/ profane username, etc) during our UAT

    c. Limited time: We will need to learn to write testing scripts and/or other automation software. There are various ways to create this. We can

4. **User Acceptance Testing Stakeholders**

During our UAT we will employ an assistive testing model; therefore, those involved will include

    a. L1 Cache Team: Provide initial instruction to users on using Cache Me if You Can, and answer follow up questions with users throughout testing

    b. Users: Execute test plan and ask questions if/when they arise

    c. Using Katalon, an open source automation software, to operate all of the test for our program.

5. **User Acceptance Test Cases**

The following outlines the test cases and their expected results

    a. Test Case 1: New User Creation

        i. A user without a previous account will attempt to log in

            1. Expected Result: The user will be unable to log in

        ii. The user will navigate to the new user page

        iii. The user will enter the username of a current user and any password

            1. Expected Result: The user will be informed that this username is unavailable, and will be asked to try another

        iv. The user will enter a new username and any password

            1. Expected Result: The user will be granted access to the webpage with this username and password

        v. The existing user will then log out.

        vi. There will be a second user creation for an account, to solve the riddle from the first user.

    b. Test Case 2: Existing User Login

        i. A user with an account previously created will open the application

        ii. The user will navigate to the login page

        iii. The user will attempt to log in with their username and an incorrect password

            1. Expected Result: The user will be unable to log in to the application

        iv. The user will attempt to log in with their password and an incorrect username

            1. Expected Result: The user will be unable to log in to the application

        v. The user will attempt to log in with their correct password and username

            1. Expected Result: The user will be granted access to the application

        vi. The user will navigate the application to see their current treasure hunt progress

1. Expected Result: The user will see the correct amount of progress completed on his/her account (ie if he/she has performed Test 3 prior to this test he/she should see one riddle complete; whereas, if he/she has not yet performed Test 3 he/she should be informed that 0 riddles are complete)

c. Test Case 3: Riddle Solving
   i. The user will enter a correct riddle answer on the Riddles page at an incorrect location (as we will be testing riddle 1, this means the user will enter '54', while being in a location other than The Sink on the Hill)
      1. Expected Result: The user will be informed that he/she had the correct answer, but was at an incorrect location, and will be prompted to re-attempt riddle. The progress through the treasure hunt should remain unchanged (0 riddles complete in this case).
   ii. The user will navigate to the location dictated by the riddle (in this case The Sink on the Hill). The L1 Cache Team will provide assistance if the user cannot decipher this location based solely on the hint
   iii. The user will enter an incorrect answer at the proper location (ie he/ she will enter '53' while being at The Sink)
      1. Expected Result: The user will be informed that he/she was at the correct location, but entered an incorrect answer. He/she will be prompted to re-attempt riddle. User progress through the treasure hunt will also remain unchanged (0 riddles complete in this case).
   iv. The user will enter a correct answer to the riddle while being at the proper location (ie the user will enter '54' while at The Sink)
      1. Expected Result: The user will be informed that the/she solved the riddle. Their page will be updated to show updated progress (1 riddle completed) and the next riddle.

d. Test Case: 4 User sign out
   i. A user with a previously created account will have the option to sign out.
   ii. By signing out, the user will no longer be signed in
   iii. Signed out users will be directed to the home/splash page
   iv. A signed out user will no longer be able to solve riddles unless prompted by a message asking said user to sign in

Resources:

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